Species Diversity, 1996, 1, 107—110

Description of a New Isometopine Plant Bug, *Isometopidea gryllocephala*, Found on Ishigaki Island, Japan (Insecta, Heteroptera, Miridae)

Syôiti Miyamoto[1], Tomohide Yasunaga[2], and Masami Hayashi[3]

[1] *Sawara-ku, Iikura 3-34-4, Fukuoka, 814-01 Japan*
[2] *Biological Laboratory, Hokkaido University of Education, Ainosato 5-3-1, Sapporo, 002 Japan*
[3] *Department of Biology, Faculty of Education, Saitama University, Urawa, 338 Japan*

(Received 26 June 1996; Accepted 13 November 1996)

A new species of isometopine plant bug, *Isometopidea gryllocephala*, is described from Ishigaki Island in the Ryukyus, Japan. This is the third species of *Isometopidea* and has the northernmost distribution in the genus.

Key Words: Heteroptera, Miridae, *Isometopidea*, new species, Japan.

Introduction

Only five species of two genera of the plant bug subfamily Isometopinae have hitherto been reported from Japan, and, needless to say, the isometopine fauna of Japan is in great need of investigation.

One of the authors, Hayashi, recently collected an interesting isometopine plant bug on Ishigaki Island in the Ryukyus, Japan. This mirid exhibits conspicuous features, such as the dorsally projected and anteriorly flattened head and strongly punctate pronotum that is margined laterally by distinct carinae. Upon examination, we found it to be an undescribed species of the Old World tropical genus *Isometopidea* proposed by Poppius (1913) to accommodate a single species from Sri Lanka. In the present paper, the third species of the genus is described and illustrated.

All measurements in the text are given in millimeters.

Genus ***Isometopidea*** Poppius

Isometopidea Poppius, 1913, Entomol. Tidskr., 34: 240, type species: *I. lieweni* Poppius, 1913, monotypic.

This genus has been represented by two species from the Old World tropics, *I. lieweni* Poppius, 1913 from Sri Lanka and *I. miriformis* Slater et Schuh, 1969 from South Africa. The present discovery on Ishigaki Island is the northernmost distributional record for the genus.

Isometopidea gryllocephala sp. nov.
(Figs 1-2)

Description of female. Coloration: Body generally brownish. Head pale brown, somewhat tinged with red below compound eye; ocelli and surroundings reddish. Antennal segment I pale brown, darkened laterally; segment II pale brown, partly and irregularly darkened; segments III and IV somewhat dark. Rostrum pale brown.

Pronotum pale grayish brown, shining between punctures; calli shiny pale brown; propleuron, episternum, and epimeron pale brown. Mesoscutum pale brown; scutellum yellowish white, with a pair of brown spots. Hemelytra pale brown, semitransparent; corium with a yellowish white spot at middle; inner half of cuneus yellowish white; membrane pale grayish brown, semitransparent. Leg pale brown; femur irregularly darkened apically; tibial spines pale brown; apical part of tarsomere III somewhat darkened. Ventral surface of abdomen pale brown, except for reddish sterna IV and VII, and for darkened VIII and IX.

Structure: Body oblong-oval; dorsal surface shining, distinctly punctate, clothed with suberect silky pubescence. Head vertical, strongly flattened in front, excavated posteriorly, its height much greater than width in anterior view; compound eyes projected dorsally, not contiguous each other, forming posterior margin of head laterally, extending dorsad of pronotum. Antennal segment I thick and very short; segment II about half as thick as I, shorter than basal width of pronotum, cylindrical and not incrassate; segments III and IV filiform; length of segments I - IV: 0.16, 1.00, 0.78, 0.25. Rostrum long, extending beyond hind coxa.

Pronotum distinctly punctate except on calli, uniformly clothed with silky pubescence, marginate laterally by impunctate and semitransparent carina; propleuron, episternum and epimeron punctate. Mesoscutum punctate, bearing silky pubescence; scutellum swollen but excavated mesad, sparsely and shallowly punctate, clothed with long, suberect, silky pubescence. Hemelytra punctate except for embolium and cuneus, uniformly clothed with suberect, pale pubescence. Legs

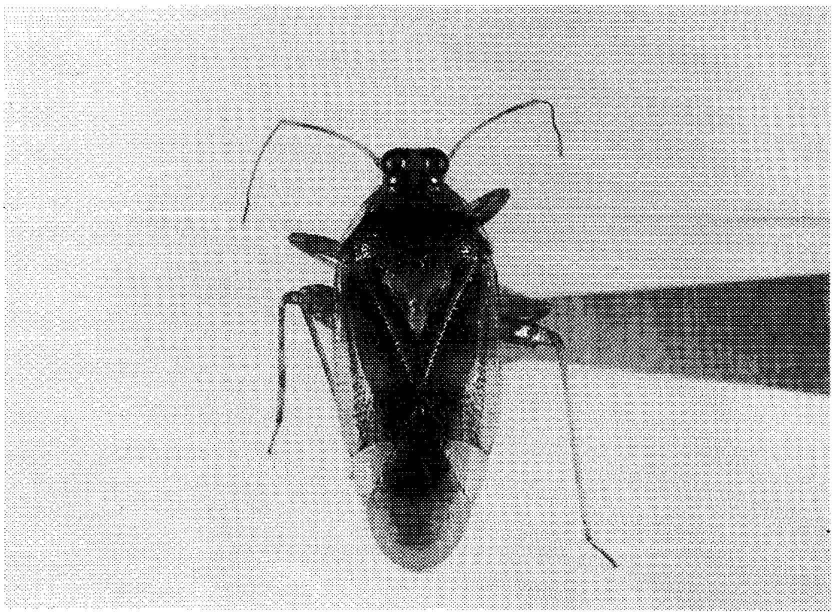

Fig. 1. *Isometopidea gryllocephala*, dorsal habitus of holotype female.

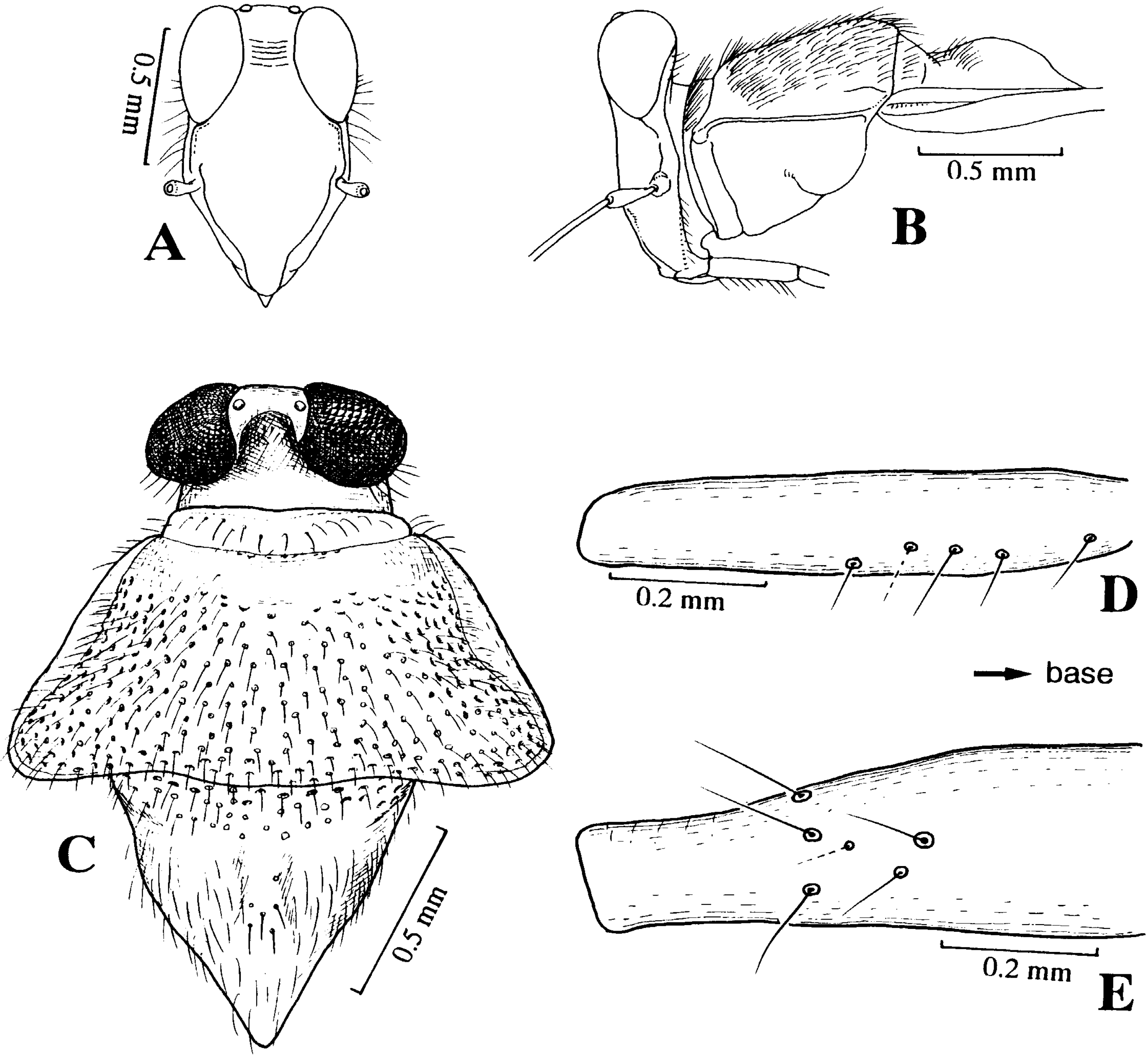

Fig. 2. *Isometopidea gryllocephala*, holotype female. A, head in anterior view; B, head, pronotum, and scutellum in left lateral view; C, the same in dorsal view; D, mesofemoral trichobothria; E, metafemoral trichobothria.

with 5 mesofemoral and 6 metafemoral trichobothria; lengths of hind femur, tibia and tarsus: 1.26, 1.90, 0.34; those of hind tarsomeres I-Ⅲ : 0.13, 0.16, 0.19.

Dimensions. Body length 4.06, head width 0.62, head height in anterior view 0.99, vertex width 0.16, width between ocelli 0.13, rostral length 1.89, basal pronotal width 1.38, and width across hemelytra 1.49.

Male. Unknown.

Type-series. Holotype: ♀, Shiramizu, Ishigaki Is., Ryukyus, Japan, 19. ⅲ. 1993, M. Hayashi & *al.* (deposited in the Department of Biology, Faculty of Education, Saitama University, Urawa).

Etymology. From the Greek, gryllos (cricket) in combination with cephala (head), referring to the peculiar shape of the head that at first sight remind a cricket.

Distribution. Japan (Ishigaki Island).

The present new species resembles *I. lieweni* Poppius, from which it is easily distinguished by the generally pale brownish and much larger body, and the antennal segment II being longer than the basal width of the pronotum. This species is also similar at first sight to *Gigantometopus rossi* Schwartz and Schuh, which was recently described on a female from Sumatra, Indonesia, as a new species representing a new genus. Although *Isometopidea* differs from *Gigantometopus* in the much smaller size, widely carinate lateral margins of the pronotum and less punctate scutellum, they are undoubtedly closely related to each other, sharing such special character as a fuller complement of femoral trichobothria (five mesofemoral and six metafemoral; see Fig. 2 D-E, and Schwartz & Schuh 1990).

This interesting new species was collected by sweeping grasses growing on the subtropical jungle floor near a montane stream. No information is available on its biology.

References

Poppius, B. 1913. Zur Kenntnis der Miriden, Isometopiden, Anthocoriden, Nabiden und Schizopteriden Ceylon's. Entomologisk Tidskrift 34: 239-260.

Schwartz, M. D. and Schuh, R. T. 1990. The world's largest isometopine, *Gigantometopus rossi*, new genus and new species (Heteroptera: Miridae). Journal of the New York Entomological Society 98: 9-13.